

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/049,526

Applicant : Ken SHOJI et al.

TC/A.U. : 1615

Filed : February 13, 2002

Examiner : TRAN, Susan T.

Title : A STRESS RELIEVING PERFUME AND A STRESS RELIEVING  
COMPOSITION CONTAINING THE SAME

Docket No. : 36427-176973

Customer No. \*26694\*

PATENT TRADEMARK OFFICE

Honorable Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
Mail Stop Non-Fee Amendment

**Submission of Declaration under 37 CFR 1.132**

Sir:

Applicants respectfully submit the accompanying declaration under 37 CFR 1.132 of Ken SHOJI, executed March 2, 2004, to the record in connection with the Request for Continued Examination (RCE) under 37 CFR 1.114 filed February 26, 2004. An unsigned copy of the declaration has been previously submitted with the February 26, 2004 request.

Should you have any question concerning this submission, please contact the applicants' attorney.

Respectfully submitted,

Fei-Fei Chao, Ph.D.  
Reg. No. 43,538

Date: March 18, 2004  
Venable LLP  
575 7<sup>th</sup> Street, NW  
Washington, D.C. 20004  
Tel.: (202) 344-8011

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Appl. No.** : 10/049,526  
**Applicant** : Ken Shoji et al                      **TC/A.U.** : 1615  
**Filed** : February 13, 2002                      **Examiner** : TRANT, Susan T.  
**Title** : A STRESS RELIEVING PERFUME AND A STRESS RELIEVING  
COMPOSITION CONTAINING THE SAME

**Docket No.** : 36427-176973

**Customer No.** \*26694\*

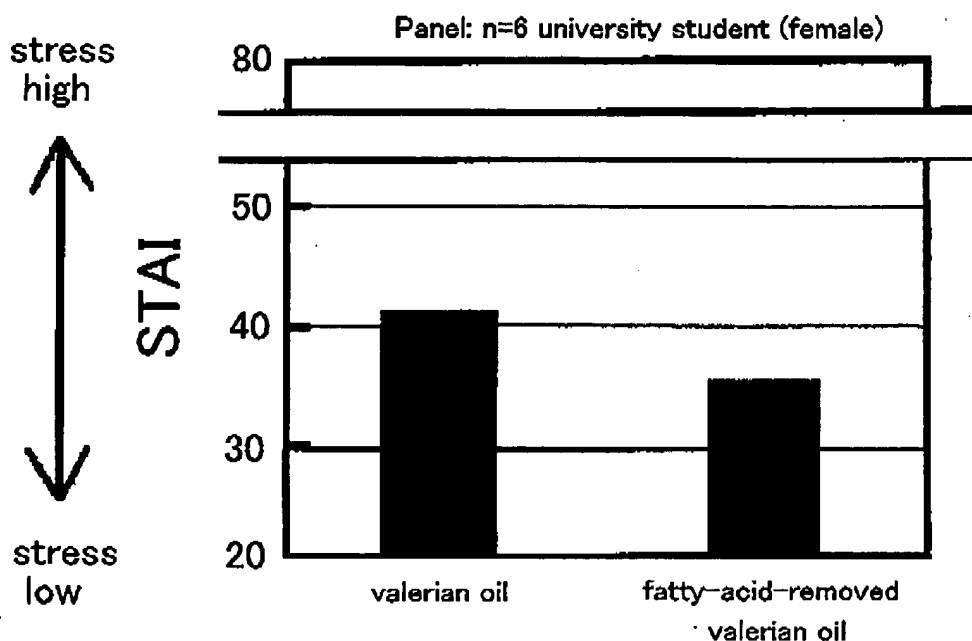
PATENT TRADEMARK OFFICE

Honorable Commissioner for Patents  
Alexandria, VA 22313  
Mail Stop Non-Fee Amendment

**DECLARATION UNDER 37 CFR 1.132**

I, Ken Shoji, declare the following:

1. That I am one of the inventors in the above-identified application.
2. That I am currently a researcher employed at Shiseido Research Center (SHIN-YOKOHAMA), with an address of 2-1, Hayabuchi 2-chome, Tsuzuki-ku, Yokohama-Shi, Kanagawa 224-8558, Japan.
3. That I have conducted research to compare the stress-relieving effect of the fatty-acid-removed valerian oil (by alkali treatment) with that of valerian oil (without fatty acid-removal), as suggested by Warren et al. (EP 0 183 436), using a State-Trait Anxiety inventory (STAI) test on 6 female university students. STAI is a widely used testing technique in the field of psychology. The result is shown in the following Figure 1:



**Figure 1**

The highest score in STAI is 80 (i.e., with the highest stress) and the lowest is 20 (i.e., with the lowest stress). As shown in the above figure, without the removal of the fatty acids, valerian oil has a STAI score of about 40.7. With the fatty-acid-removed valerian oil, however, the stress is lowered to about 36.8, which is significantly less than that of the stress-relieving effect of valerian oil without fatty acids removal. The result thus shows that our invention of using fatty-acid-removed valerian oil is distinctively different from Warren's disclosure of using valerian oil without fatty-acid-removal.

4. That I have also tested the high heat effect on valerian oil. As shown in the following Table, the boiling point for isovaleric acid (i.e., the majority of the fatty acids in valerian oil) is at 176°C, so is for many other components of valerian oil. Thus, if we want to remove the fatty acids in valerian oil using a high heat treatment, such as suggested by Tanida et al. (JP-01-254628), the temperature would have to be at least 176°C. However,



under this temperature, many components other than fatty acids would also be removed together with the fatty acids, due to the similarity of the boiling points. Also, in accordance with the Abstract of Tanida et al., the fraction of the valerian oil that is used in the study is a fraction distilled out at 80°C. Since this temperature (i.e., 80°C) is substantially lowered than the boiling point of isovaleric acid (i.e., the bulk of the fatty acids in valerian oil), most of the fatty acids in valerian oil would not be removed in this fraction. Contrary to Tanida et al., when the alkali treatment is applied, as described in our invention, other components are not removed even though the fatty acids are completely removed. Therefore, treating valerian oil with high heat as shown in JP01-254628 and treating valerian oil with alkali treatment as shown in the present invention are different.

Table 1. Comparison of the Components of Valerian Oil with or without Alkali Treatment

Peak No.	Component (b.p.)	Peak Area (%)	
		Valerian Oil	Valerian Oil Obtained by Alkali Treatment
1	α-pinene (157°C)	9.19	8.00
2	Camphene (159°C)	17.46	18.59
3	β-pinene (166°C)	6.73	5.17
4	Δ-mycene (167°C)	0.41	0.29
5	limonene (177°C)	2.83	2.16
6	p-cymene (179°C)	0.84	0.76
7	acetic acid (118°C)	0.25	---
8	α-terpinolene (184°C)	0.24	---
9	l-bornyl acetate (226°C)	29.35	34.24
10	α-caryophyllene (256°C)	2.28	2.12
11	Isovaleric acid (176.5°C)	0.89	---
12	Mycenyl acetate (224°C)	0.61	0.59
13	1-borneol (214°C)	2.32	2.05
14	α-bisabolene (262°C)	0.58	0.54



I hereby declare that all statements made herein true, and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Ken Shoji  
Ken Shoji

Mar. 2, 2004  
Date

#501083